**ES3 Benchmark Statement 2022 - Learning outcomes mapping**

This table is designed to clearly demonstrate where the ES3 Benchmark Statement learning outcomes are addressed within the programme. These learning outcomes are defined within Section 5 of the [ES3 Benchmark Statement](https://www.qaa.ac.uk/quality-code/subject-benchmark-statements/earth-sciences-environmental-science-and-environmental-studies), “Benchmark Standards”, and are as follows:

1. **Intellectual skills (knowledge and understanding)**
   1. Have a knowledge and understanding of subject-specific theories, paradigms, concepts and principles
   2. Integrate evidence from a range of sources to test findings and hypotheses consider and appraise issues from a range of multidisciplinary and interdisciplinary perspectives
   3. Analyse, synthesise, summarise, appraise and critically evaluate information
   4. Define complex problems and develop and evaluate possible solutions
   5. Develop and test hypotheses to inform and design investigations (and experiments)
   6. Plan, conduct and present an independent project with appropriate guidance
   7. Take a critical approach to academic literature, data and other sources of information
   8. Have confidence and competence in dealing with uncertainty in data and systems response.
2. **Practical skills**
   1. Conduct fieldwork and laboratory investigations competently (as appropriate)
   2. Describe and record observations effectively in the field and laboratory
   3. Interpret and evaluate practical results in a logical manner
   4. Undertake laboratory and fieldwork ethically and safely with an appreciation of appropriate codes of conduct and legal requirements
   5. Gather, prepare, process and interpret data using appropriate techniques
   6. Use appropriate numerical, statistical and qualitative techniques
   7. Use appropriate technologies in addressing problems effectively
3. **Communication skills**
   1. Communicate effectively with a variety of audiences using a range of formats and media
   2. Have good interpersonal communication skills to enable effective team working
   3. Acknowledge and understand different perspectives
   4. Effectively articulate and synthesise an argument
   5. Present a case in an influential and persuasive manner.
4. **Personal and professional skills**
   1. Reflect on the process of learning and evaluate personal strengths and weaknesses
   2. Develop the skills for autonomous learning
   3. Plan and organise workloads, including project management
   4. Develop leadership qualities
   5. Work effectively as a team member
   6. Work online and remotely as well as in person
   7. Demonstrate professional behaviours
   8. Display an appreciation of developing graduate skills relevant to career pathways
   9. Recognise the importance of planning for personal, career and professional development, including identifying and working towards targets
   10. Recognise and respect the views of others
   11. Demonstrate an understanding of the importance of risk assessment and associated legislation for health, safety and well-being
   12. Recognise the importance of equality, diversity and inclusivity and develop behaviours that support EDI
   13. Appreciate the need to act and work in an ethical and sustainable manner and in compliance with relevant legislation.

Please detail in the table below the module codes and names, indicating which level they are taught and whether they are core modules.

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| **Module Code** | **Module Name** | **Level** | **Core Y/N** |
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**Detail here where benchmark standards are not met within the programme.**

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| **Benchmark Standard** | **Explanation** |
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| **Module Information** | | **Knowledge &**  **Understanding** | | | | | | | | **Practical**  **Skills** | | | | | | | **Communication skills** | | | | | **Personal &**  **Professional Skills** | | | | | | | | | | | | |
| **Module Code** | **Core (Y)** | **1.1** | **1.2** | **1.3** | **1.4** | **1.5** | **1.6** | **1.7** | **1.8** | **2.1** | **2.2** | **2.3** | **2.4** | **2.5** | **2.6** | **2.7** | **3.1** | **3.2** | **3.3** | **3.4** | **3.5** | **4.1** | **4.2** | **4.3** | **4.4** | **4.5** | **4.6** | **4.7** | **4.8** | **4.9** | **4.10** | **4.11** | **4.12** | **4.13** |
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